

What is Claimed is:

1. An apparatus for mounting an optical device, comprising:

an adhesive pad including two substantially planar faces, each one of said
5 planar faces coated with an adhesive facilitating mounting said optical device to a
circuit board so the optical device remains affixed through a range of operating
temperature and pressures, said adhesive pad having a prescribed thickness for
facilitating said affixing.

10 2. The apparatus of claim 1, wherein the adhesive pad includes copper.

3. The apparatus of claim 1, wherein the apparatus includes a surface mount.

4. The apparatus of claim 1, wherein the adhesive pad includes two substantially
15 planar faces, each one of said planar faces is coated with an adhesive that facilitates
affixing said optical device

5. The apparatus of claim 4, wherein the adhesive is electrically conductive.

20 6. A surface mount apparatus for mounting an optical device, comprising:

an adhesive pad including two substantially planar faces, each one of said
planar faces coated with an adhesive that facilitates affixing said optical device to a
circuit board wherein the optical device remains affixed through a range of operating

temperature and pressures, said adhesive pad having a prescribed thickness for facilitating said affixing;

said optical device having a device package and a plurality of lead interconnects, said device package having a baseplate vertically separated from said lead interconnects by a first distance, said circuit board having a mounting region that said adhesive pad is mounted to, and a plurality of electric connection portions that said plurality of electric lead interconnects connect to, wherein said mounting region is vertically separated from said electric connection portions by a second distance; and

wherein said adhesive pad has a thickness to compensate for said first distance and said second distance wherein the baseplate of said optical device is mounted to said circuit board using said adhesive pad, each of said plurality of lead interconnects each contacting a respective one of said plurality of electric connection portions.

7. A surface mount assembly configured to provide an interface between an optical device and a circuit board comprising:

a mounting region for receiving said optical device, said mounting region located on said circuit board;

an adhesive pad including two substantially planar faces, each one of said planar faces coated with an adhesive that facilitates affixing said optical device to a circuit board wherein the optical device remains affixed through a range of operating temperature and pressures, said adhesive pad having a prescribed thickness for facilitating said affixing; and

wherein said optical device includes a device package and a plurality of electric lead interconnects, said device package having a baseplate located at a first

height, said lead interconnects extending from said device package to a second height, a height difference defining the vertical difference between the first height and the second height, and wherein said circuit board includes a mounting region to which the baseplate of the device package is mounted using said adhesive pad in a manner so
5 the thickness of the adhesive pad improves a mechanical connection of the electric lead interconnects to an electric connection simultaneous to a mechanical connection of the baseplate to the mounting region on the circuit board.

8. An optical transponder comprising:

10 an optical transmitter;

an optical receiver;

a circuit board including a first mounting region and a second mounting region, the first mounting region configured for mounting said optical transmitter, the second mounting region configured for mounting said optical receiver;

15 a first adhesive pad including two substantially planar faces, each one of said planar faces of the first adhesive pad is coated with an adhesive that facilitates a first affixing said optical transmitter to the first mounting region wherein the optical transmitter remains affixed through a range of operating temperature and pressures, said first adhesive pad having a prescribed thickness for facilitating said first affixing;

20 and

a second adhesive pad including two substantially planar faces, each one of said planar faces of the second adhesive pad is coated with an adhesive that facilitates a second affixing of said optical receiver to the second mounting region wherein the optical receiver remains affixed through a range of operating temperature and

pressures, said second adhesive pad having a prescribed thickness for facilitating said second affixing.

9. The optical transponder of claim 8, wherein the optical transmitter comprises:

5 a header;

a hybrid subassembly;

a laser mounted on the header;

a laser driver mounted on the hybrid subassembly; and

10 an air trench formed between the location on the header to which the laser is mounted and the location on the hybrid subassembly to which the laser driver is mounted.

10. The optical transponder of claim 8, wherein said optical transmitter includes a device package and a plurality of electric lead interconnects, said device package

15 having a baseplate located at a first height, said lead interconnects extending from said device package to a second height, said first height different from said second height by a height difference, and wherein said first mounting region uses said first adhesive pad in a manner so the thickness of the first adhesive pad improves an electrical connection between each one of the plurality of electric lead interconnects

20 and a respective one of a plurality of electrical connections formed on the circuit board simultaneous to a mechanical connection of said baseplate to said first mounting region on said circuit board.

11. The optical transponder of claim 8, wherein said optical receiver includes a device package and a plurality of electric lead interconnects, said device package having a baseplate located at a first height, said lead interconnects extending from said device package to a second height, said first height different from said second height by a height difference, and wherein said second mounting region uses said second adhesive pad in a manner so the thickness of said second adhesive pad improves a connection between each one of said plurality of electric lead interconnects to a respective one of a plurality of electrical connections formed on the circuit board simultaneous to a mechanical connection of said baseplate to said second mounting region on said circuit board.